

AMENDMENTS TO THE CLAIMS:

This listing of claims replaces all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

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1. (Previously Presented) A method of reading data from a storage medium, comprising:
reading data on the storage medium in response to a command, the data comprising prefetch data and demand data;
storing the demand data in a region of memory; and
issuing an interrupt after the demand data has been stored in memory and while the prefetch data is being read.
 2. (Original) The method of claim 1, further comprising consulting a database to determine when to issue the interrupt.
 3. (Original) The method of claim 2, wherein the database comprises instructions for storing the data and for issuing the interrupt.
 4. (Original) The method of claim 2, wherein the database comprises a scatter/gather list.

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5. (Previously Presented) The method of claim 1, wherein the demand data is read from a first location on the storage medium and the prefetch data is read from a second location on the storage medium, the first location preceding the second location in a direction of movement of the storage medium during reading.

6. (Previously Presented) The method of claim 5, further comprising reading additional prefetch data from a third location on the storage medium, the third location preceding the first and second locations in a direction of movement of the storage medium during reading.

7. (Previously Presented) A method by which a host processing device reads data from a storage medium of a disk drive, comprising:

reading data from a first location on the storage medium in response to a command requesting data at a second location on the storage medium; and

reading data from the second location on the storage medium in response to the command, the first location preceding the second location in a direction of movement of the storage medium during reading;

wherein reading data from the first location and reading data from the second location are performed as part of a single access of the storage medium in response to the command.

8. (Original) The method of claim 7, wherein the first location is adjacent to the second location.

9. (Previously Presented) The method of claim 7, further comprising reading data from a third location on the storage medium, the third location following the second location in the direction of movement of the storage medium during reading.

10. (Original) The method of claim 9, wherein the third location is adjacent to the second location.

11. (Original) The method of claim 7, further comprising receiving the command from a computer program executing on the host processing device.

12. (Original) The method of claim 7, further comprising storing data read from the first and second locations in a memory on the host processing device.

13. (Previously Presented) A machine-readable medium that stores instructions to read data from a storage medium, the instructions causing a machine to:

read data on the storage medium in response to a command, the data comprising prefetch data and demand data;

store the demand data in a region of memory; and

issue an interrupt after the demand data has been stored in memory and while the prefetch data is being read.

14. (Previously Presented) The machine-readable medium of claim 13, further comprising instructions that cause the machine to consult a database to determine when to issue the interrupt.

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15. (Previously Presented) The machine-readable medium of claim 14, wherein the database comprises instructions for storing the data and for issuing the interrupt.

16. (Previously Presented) The machine-readable medium of claim 14, wherein the database comprises a scatter/gather list.

17. (Previously Presented) The machine-readable medium of claim 13, wherein the demand data is read from a first location on the storage medium and the prefetch data is read from a second location on the storage medium, the first location preceding the second location in a direction of movement of the storage medium during reading.

18. (Previously presented) The machine-readable medium of claim 17, further comprising instructions that cause the machine to read additional prefetch data from a third location on the storage medium, the third location preceding the first and second locations in a direction of movement of the storage medium during reading.

19. (Previously presented) A computer program stored on a computer-readable medium which causes a host processing device to read data from a storage medium of a disk drive, the computer program comprising instructions that cause the host processing device to:

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read data from a first location on the storage medium in response to a command requesting data at a second location on the storage medium; and

read data from the second location on the storage medium in response to the command, the first location preceding the second location in a direction of movement of the storage medium during reading;

wherein reading data from the first location and reading data from the second location are performed as part of a single access of the storage medium in response to the command.

20. (Original) The computer program of claim 19, wherein the first location is adjacent to the second location.

21. (Previously presented) The computer program of claim 19, further comprising instructions that cause the host processing device to read data from a third location on the storage medium, the third location following the second location in the direction of movement of the storage medium during reading.

22. (Original) The computer program of claim 21, wherein the third location is adjacent to the second location.

23. (Original) The computer program of claim 19, further comprising instructions that cause the host processing device to receive the command from a computer program executing on the host processing device.

24. (Original) The computer program of claim 19, further comprising instructions that cause the host processing device to store data read from the first and second locations in a memory on the host processing device.

25. (Previously presented) An apparatus for reading data from a storage medium, comprising:

a memory which stores computer instructions; and

a processor which executes the computer instructions to (i) read data on the storage medium in response to a command, the data comprising prefetch data and demand data, (ii) store the demand data in a region of memory, and (iii) issue an interrupt after the demand data has been stored in memory and while the prefetch data is being read.

26. (Original) The apparatus of claim 25, wherein the processor executes computer instructions to consult a database to determine when to issue the interrupt.

27. (Original) The apparatus of claim 26, wherein the database comprises instructions for storing the data and for issuing the interrupt.

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28. (Previously presented) The apparatus of claim 25, wherein the demand data is read from a first location on the storage medium and the prefetch data is read from a second location on the storage medium, the first location preceding the second location in a direction of movement of the storage medium during reading.

29. (Previously presented) An apparatus for reading data from a storage medium of a disk drive, comprising:

a memory which stores computer instructions; and

a processor which executes the computer instructions to (i) read data from a first location on the storage medium in response to a command requesting data at a second location on the storage medium, and (ii) read data from the second location on the storage medium in response to the command, the first location preceding the second location in a direction of movement of the storage medium during reading;

wherein reading data from the first location and reading data from the second location are performed as part of a single access of the storage medium in response to the command.

30. (Original) The apparatus of claim 29, wherein the first location is adjacent to the second location.

31. (Previously presented) A method of reading data from a storage medium, comprising:

reading data on the storage medium in response to a command;

storing the data in a region of memory; and

consulting a database to determine when to issue an interrupt;

wherein the interrupt is issued after a predetermined portion of the data has been stored in memory.

32. (Previously presented) The method of claim 31, wherein the database comprises instructions for storing the data and for issuing the interrupt.

33. (Previously presented) The method of claim 31, wherein the database comprises a scatter/gather list.

34. (Previously presented) The method of claim 31, wherein the predetermined portion of data is read from a first location on the storage medium and additional data is read from a second location on the storage medium, the first location preceding the second location in a direction of movement of the storage medium during reading.

35. (Previously presented) The method of claim 34, further comprising reading data from a third location on the storage medium, the third location preceding the first and second locations in a direction of movement of the storage medium during reading.

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36. (Previously presented) A machine-readable medium that stores instructions to read data from a storage medium, the instructions causing a machine to:

- read data on the storage medium in response to a command;
- store the data in a region of memory; and
- consult a database to determine when to issue an interrupt;

wherein the interrupt is issued after a predetermined portion of the data has been stored in memory.

37. (Currently Amended) The machine-readable medium ~~computer program~~ of claim 36, wherein the database comprises instructions for storing the data and for issuing the interrupt.

38. (Currently Amended) The machine-readable medium ~~computer program~~ of claim 36, wherein the database comprises a scatter/gather list.

39. (Currently Amended) The machine-readable medium ~~computer program~~ of claim 36, wherein the predetermined portion of the data is read from a first location on the storage medium and additional data is read from a second location on the storage medium,

the first location preceding the second location in a direction of movement of the storage medium during reading.

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40. (Currently Amended) The machine-readable medium ~~computer program~~ of claim 39, further comprising instructions that cause the machine to read data from a third location on the storage medium, the third location preceding the first and second locations in a direction of movement of the storage medium during reading.

41. (Previously presented) An apparatus for reading data from a storage medium, comprising:

a memory which stores computer instructions; and

a processor which executes the computer instructions to (i) read data on the storage medium in response to a command, (ii) store the data in a region of memory, and (iii) consult a database to determine when to issue the interrupt;

wherein the interrupt is issued after a predetermined portion of the data has been stored in memory.

42. (Previously presented) The apparatus of claim 41, wherein the database comprises instructions for storing the data and for issuing the interrupt.

43. (Previously presented) The apparatus of claim 41, wherein the database comprises a scatter/gather list.

44. (Previously presented) The apparatus of claim 41, wherein the predetermined portion of data is read from a first location on the storage medium and additional data is read from a second location on the storage medium, the first location preceding the second location in a direction of movement of the storage medium during reading.

45. (Previously presented) The apparatus of claim 44, wherein the processor executes instructions to read data from a third location on the storage medium, the third location preceding the first and second locations in a direction of movement of the storage medium during reading.

46. (Previously presented) A method of reading data from a storage medium, comprising:

reading data on the storage medium in response to a command, the data comprising prefetch data and demand data;

storing the demand data in a region of memory; and

issuing an interrupt after the demand data has been stored in memory;

wherein the demand data is read from a first location on the storage medium and the prefetch data is read from a second location on the storage medium, the first location preceding the second location in a direction of movement of the storage medium during reading.

47. (Previously presented) The method of claim 46, further comprising consulting a database to determine when to issue the interrupt.

48. (Previously presented) The method of claim 47, wherein the database comprises instructions for storing the data and for issuing the interrupt.

49. (Previously presented) The method of claim 47, wherein the database comprises a scatter/gather list.

50. (Previously presented) The method of claim 46, further comprising reading additional prefetch data from a third location on the storage medium, the third location preceding the first and second locations in a direction of movement of the storage medium during reading.

51. (Previously presented) A machine-readable medium that stores instructions to read data from a storage medium, the instructions causing a machine to:

read data on the storage medium in response to a command, the data comprising prefetch data and demand data;

store the demand data in a region of memory; and

issue an interrupt after the demand data has been stored in memory;

wherein the demand data is read from a first location on the storage medium and the prefetch data is read from a second location on the storage medium, the first location

preceding the second location in a direction of movement of the storage medium during reading.

52. (Previously presented) The machine-readable medium of claim 51, further comprising instructions that cause the machine to consult a database to determine when to issue the interrupt.

53. (Previously presented) The machine-readable medium of claim 52, wherein the database comprises instructions for storing the data and for issuing the interrupt.

54. (Previously presented) The machine-readable medium of claim 52, wherein the database comprises a scatter/gather list.

55. (Previously presented) The machine-readable medium of claim 52, further comprising instructions that cause the machine to read additional prefetch data from a third location on the storage medium, the third location preceding the first and second locations in a direction of movement of the storage medium during reading.

56. (Previously presented) An apparatus for reading data from a storage medium, comprising:

a memory which stores computer instructions; and

a processor which executes the computer instructions to (i) read data on the storage medium in response to a command, the data comprising prefetch data and demand data, (ii) store the demand data in a region of memory, and (iii) issue an interrupt after the demand data has been stored in memory;

D1 wherein the demand data is read from a first location on the storage medium and the prefetch data is read from a second location on the storage medium, the first location preceding the second location in a direction of movement of the storage medium during reading.

57. (Previously presented) The apparatus of claim 56, wherein the processor executes instructions to consult a database to determine when to issue the interrupt.

58. (Previously presented) The apparatus of claim 57, wherein the database comprises instructions for storing the data and for issuing the interrupt.

59. (Previously presented) The apparatus of claim 57, wherein the database comprises a scatter/gather list.

60. (Previously presented) The apparatus of claim 56, further comprising reading additional prefetch data from a third location on the storage medium, the third location preceding the first and second locations in a direction of movement of the storage medium during reading.

61. (Previously presented) A method of reading data from a storage medium, comprising:

reading data on the storage medium in response to a command, the data comprising prefetch data and demand data, the prefetch data being read from an area of the storage medium that precedes the demand data in a direction of movement of the storage medium during reading and from an area of the storage medium that follows the demand data in a direction of movement of the storage medium during reading;

storing the demand data in a region of memory; and

issuing an interrupt after the demand data has been read.

62. (Previously presented) The method of claim 61, further comprising consulting a database to determine when to issue the interrupt.

63. (Previously presented) The method of claim 62, wherein the database comprises instructions for storing the data and for issuing the interrupt.

64. (Previously presented) The method of claim 62, wherein the database comprises a scatter/gather list.

65. (Previously presented) A machine-readable medium that stores instructions to read data from a storage medium, the instructions causing a machine to:

read data on the storage medium in response to a command, the data comprising prefetch data and demand data, the prefetch data being read from an area of the storage medium that precedes the demand data in a direction of movement of the storage medium during reading and from an area of the storage medium the follows the demand data in a direction of movement of the storage medium during reading;

store the demand data in a region of memory; and
issue an interrupt after the demand data has been read.

66. (Previously presented) The machine-readable medium of claim 65, further comprising instructions that cause the machine to consult a database to determine when to issue the interrupt.

67. (Previously presented) The machine-readable medium of claim 66, wherein the database comprises instructions for storing the data and for issuing the interrupt.

68. (Previously presented) The machine-readable medium of claim 66, wherein the database comprises a scatter/gather list.

69. (Previously presented) An apparatus for reading data from a storage medium, comprising:

a memory which stores computer instructions; and

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and

a processor which executes the computer instructions to (i) read data on the storage medium in response to a command, the data comprising prefetch data and demand data, the prefetch data being read from an area of the storage medium that precedes the demand data in a direction of movement of the storage medium during reading and from an area of the storage medium the follows the demand data in a direction of movement of the storage medium during reading, (ii) store the demand data in a region of memory, and (iii) issue an interrupt after the demand data has been read.

70. (Previously presented) The apparatus of claim 69, wherein the processor executes instructions to consult a database to determine when to issue the interrupt.

71. (Previously presented) The apparatus of claim 70, wherein the database comprises instructions for storing the data and for issuing the interrupt.

72. (Previously presented) The apparatus of claim 70, wherein the database comprises a scatter/gather list.
